

## ABSTRACT

This invention provides a process for producing a 5-hydroxy-3-oxopentanoic acid, a useful pharmaceutical  
5 intermediate, easily from a readily available, inexpensive starting material without using any extraordinary production equipment such as a very-low-temperature reactor.

Thus, this invention provides a process for producing a 5-hydroxy-3-oxopentanoic acid

10 which comprises permitting a lithium amide to act upon a mixture of an acetic acid ester and a 3-hydroxypropionic acid derivative at not below -20 °C.

Further, this invention also provides a process for producing a 5-hydroxy-3-oxopentanoic acid

15 which comprises treating a mixture of an acetic acid ester and a 3-hydroxypropionic acid derivative with a Grignard reagent to prepare a mixture of a compound and an acetic acid ester of the above formula (I),

20 and permitting a lithium amide to act upon the mixture at a temperature not below -20 °C.

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